

Ultra-compact, High Resolution, LADAR System for 3D Imaging, Phase II

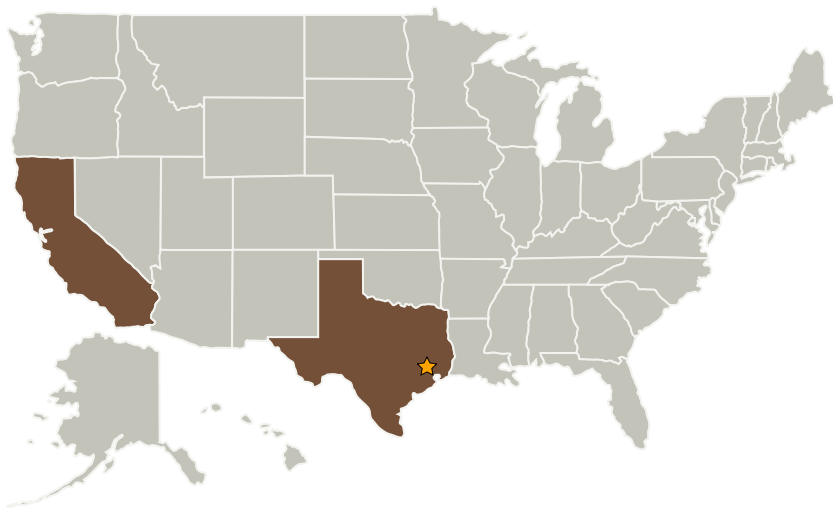
Completed Technology Project (2004 - 2006)



Project Introduction

NASA requires a small, lower power "ranging" sensor that produces a depth map of the scene (the exterior of the Space Shuttle, the International Space Station or a future Space Solar Power Satellite) to inspect for damage. By combining innovative designs with MEMS-based scanners and off the shelf electronic and optical components, this program will develop a low power, miniature LADAR system with 1 mm resolution at 10 meters weighing <300 g, costing orders of magnitude less compared to the state-of-the art systems. This LADAR will be capable of providing high resolution 3-D images of Space Shuttle Thermal Protection System for damage assessment.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Siwave, Inc.	Supporting Organization	Industry	Arcadia, California

Primary U.S. Work Locations

California	Texas
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Table of Contents

Project Introduction	1
Primary U.S. Work Locations and Key Partners	1
Organizational Responsibility	1
Project Management	2
Technology Areas	2

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.1 Detectors and Focal Planes